

The following abbreviated guidance is from the Statements of Work for Tennessee conservation practices filed in Section IV of the e-FOTG.

Supporting data include those features of a practice that can be measured, surveyed, tested, or observed. The completed work is to be checked against the plans and specifications or other requirements to ensure a satisfactory job. Check out notes or observations become a part of the supporting data along with previous planning, layout, or documenting records.

For engineering practices, the documentation procedure consists of three elements:

- Planning or Preliminary Investigation (I&E)
- Design
- Construction

<u>Preliminary Investigation</u> consists of determining the feasibility of the practice in regards to the purpose and applicability of the conservation practice to the site conditions, topography, soils, cost, etc. It is highly recommended that the Designer review the criteria in the conservation practice standards prior to the preliminary investigation and during the final design. During the preliminary investigation, sufficient data must be gathered and analyzed to determine whether to proceed with the practice. This includes obtaining surveys with applicable topographic information to determine or evaluate practice(s) location, where applicable.

<u>Design</u> consists of using all data gathered along with the criteria in the conservation practice standard to determine the size, extent, quantity, etc., needed to meet the purpose(s) of the conservation practice. Conservation practices must meet the minimum design criteria as contained in the applicable conservation practice standard. Sufficient data must be obtained to document all aspects of the engineering design. Plans and specifications will be developed in sufficient detail for the landowner or contractor to understand the practice requirements and properly install the practice.

<u>Construction</u> consists of layout and checkout. It includes providing the landowner or contractor with sufficient field stakes so that the practice can be installed as designed. Construction checkout consists of gathering sufficient field data to verify if the practice has been installed according to the plans and specifications and to determine the extent of the practice.

If the practice meets NRCS standards and specifications, then the following statement will be placed on the checkout document and signed and dated by the responsible person: "This practice meets NRCS practice standards and specifications." After it has been determined and documented that the practice meets NRCS plans and specifications, it can be reported and certified.

For all the non-engineering practices, refer to the land use category on the Basic Documentation pages for the general requirements, and then refer to the conservation practice for individual documentation requirements.

All documentation will be filed in the case file or referred to in the plan narrative and/or assistance notes or contained in the electronic folder of Customer Service Toolkit.

Page 1 Issued June 2006



BASIC DOCUMENTATION REQUIRED IN ALL CONSERVATION PLANS

Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
All Practices	TN-CPA-25, planning map, location map, soils map, rates or units and dates, O & M narrative for practices planned, and copies of materials provided to the land user such as job sheets, specification sheets, work sheets, etc. Also include the response sheet or e-mail from Biologist if state and/or federal listed species are identified on the quad sheet (State Bulletin 180-06-2).	 □ Photo documentation recommended. □ GPS for linear and point practices (optional). □ CONS-6 Notes – description of checkout conditions of practices. □ Record of approved variances by technical specialists.
Documentation for	Planning	Construction
Engineering	☐ Inventory and evaluation records.	Inspection records as identified by practice.
Practices consists of documenting	O CONS-6 notes or special report. ☐ Topographic or other survey. Survey notes, where applicable, on	☐ CONS-6 notes, ENG-523a, SCS-ENG-28 and 29, or separate inspection records.
information to the	SCS-ENG-28 and 29 or other appropriate form.	☐ Construction approval statement and signature.
right plus any	□ Photos, where applicable.	Record of any design variances approved by and date,
additional	☐ Note location of UTILITIES and utility markers.	where applicable.
information listed	Design	Record of approvals of in-field changes affecting
below in the	☐ Physical data, functional requirements, and site constraints, where	function and/or job class, where applicable.
individual	applicable.	☐ Final quantities if used for payment.
conservation	☐ Soils/subsurface investigation report, where applicable.	☐ Adequacy of seeding, liming, fertilizing, and mulching.
practice standards.	 □ Design and quantity calculations. □ Plans and Specifications with: ○ Location map. ○ Designed by and checked by names or initials. ○ Approval signature. ○ Location of utilities and notification requirements. ○ Seeding, liming, fertilizing, and mulching requirements. □ Pre-construction conference, if applicable. □ Cost estimate and quantities. □ O&M Plan, where needed. 	☐ Certification that practices meet NRCS standards and specifications.
Crop	☐ Conservation Crop Rotation or Tillage System if all crops are planted	See individual practice description.
(Documentation	by the same tillage method.	
Requirements on all	Unitary Management (Soil Test).	
RMS Level	□ Pest Management (WIN-PST). □ Pefers and after sail less when used as a planning tool (PUSLE2).	
Cropland)	Before and after soil loss when used as a planning tool (RUSLE2).Soil Conditioning Index and STIR Index (RUSLE2).	
Pasture	□ Prescribed Grazing Plan and Forage Balance.	See individual practice description.
(Documentation	☐ Watering Facility, Pond, or Stream Accessibility.	See marriadar praetice description.
Requirements on all	□ Nutrient Management (Soil Test).	
RMS Level	□ Pest Management (WIN-PST).	
Pastureland)	☐ Tools: Graze Program, Estimated Paddock Size.	

Page 2 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Hay	□ Forage Harvest Management.	See individual practice description.
(Documentation	□ Nutrient Management (Soil Test).	
Requirements on all		
RMS Level Hay	☐ Tool: Graze Program if hay is used on the farm to balance forage.	
Land)		
Wildlife	□ Nutrient Management (Soil Test).	See individual practice description.
(Documentation	□ Pest Management (WIN-PST).	
Requirements on all	☐ Tool: Habitat Evaluation Procedure.	
RMS Level Wildlife		
Land)		
Forest	☐ If established or recently planted, a Woodland Inventory Transect is	See individual practice description.
(Documentation	required.	
Requirements on all	□ If planting forest, the following practices are recommended to be	
RMS Level Forest	part of the plan if applicable:	
Land)	 Tree/Shrub Establishment. 	
	 Forest Site Preparation. 	
	o Firebreak.	
	 Erosion and sediment control practices. 	
	Use Exclusion.	

BASIC DOCUMENTATION REQUIRED BY CONSERVATION PRACTICE

Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Access Road (560)	Planning	Construction
Ft.	☐ Site suitability.	☐ Length (GPS preferred).
	☐ Water control structures needed.	☐ Cross-section representing the section that is least
	☐ Type of surface treatment needed.	likely to meet standards and specifications
	Design	☐ Type and thickness and extent of surface treatment
	☐ Plans and specifications:	installed
	O Location.	☐ Location, size, and elevations (inlet and outlet) of all
	O Width of road.	structures along access road
	O Length of road.	
	O Grade or percent of slope.	
	O Type and thickness of surface treatment including any sub-base	
	preparation.	
	O Cut and fill slopes where applicable.	
	O Drainage areas and structure requirements.	
	□ O&M Plan.	

Page 3 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Agrichemical	Planning	Construction
Handling Facility	☐ Site suitability considering topography, flood plain, type and amount	☐ Elevation of completed agrichemical handling facility
(702) No.	of chemicals stored and/or mixed at the facility, potential for ground	and sump.
	water contamination, size of application equipment, potential water	☐ Sufficient number of cross-sections to document the
	source and cost.	slope of the slab.
	Design	☐ Constructed dimensions.
	☐ Size and type of structure needed.	☐ Structural components:
	☐ Chemical spill storage volume required based on the largest sprayer	O Spacing, height, depth of embedment, and size
	equipment or storage tank that will be brought into the facility.	of support posts and preservative treatment
	☐ For pole barn type structures, size support posts and beams based on	used.
	appropriate dead and live loads.	O Type of trusses used and certification from a
	☐ Plans and specifications:	Tennessee licensed professional engineer.
	O Plan view and cross-sections.	O Size of beams and preservative treatment used.
	O Truss and roof details.	O Sump dimensions and materials used.
	O Electrical components (e.g., switches, lights, outlets, etc.).	O Liner type and thickness.
	O Pump and sump type, size, location.	O Pump type and capacity.
	O Safety signs.	O Type of sealant used for concrete floor.
	O Liner details.	O Emergency eyewash/shower unit used.
	O Concrete floor and sealant, footer, and curb details.	O Backflow prevention devices used.
	O Emergency eyewash/shower details.	O Anti-siphon device used.
	O Water supply and anti-syphon device.	O Safety signs.
	O Backflow prevention device.	O Concrete design mix.
	□ O&M Plan.	O Roof details and pitch.
		☐ Electrical certifications.
		☐ As-built drawings.

Page 4 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
	Planning Type of facility needed. If freezers are used, there must be a Stateapproved vendor available to pick up and process the animal mortality from the freezers. Pesign Plans and specifications: Location of the facility. Pertinent elevations of the facility. Location of electrical lines, gas lines, and requirements for burial and quality of materials. Standard details when concrete or timber is used for the facility foundation. Number and capacity calculations. Where a roof structure is used to protect the facility, include design data and building dimensions. O&M Plan.	Construction Rotary drum: Number and capacity of drums. Manufacturer's certification of operation. Structural components: Type and size of foundation used. Location of electrical lines. For roofed structure, verification that roof was installed according to plans. Truss certification by Tennessee Planning Engineer. Incinerator: Capacity of incinerator(s). Manufacturer's certification of operational temperatures. Structural components: Type and size of foundation used for the incinerator. Location and type of gas service provided. Location of electrical lines. For roofed structure, verification that roof was installed according to plans. Truss certification by Tennessee Planning Engineer. Freezer: Cucation and elevation of facility. Number of facilities, dimensions, and capacity in
		cubic feet. ☐ Compost Facility (see Compost Facility, Code 317).

Page 5 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Animal Trails and	Planning	Construction
Walkways, (575),	☐ Site suitability.	☐ Enough cross-sections that demonstrate
Ft.	☐ Water control structures needed.	conformance with standards and specifications.
	☐ Type of surface treatment needed.	☐ Surface area treatment area and length (GPS
	Design	preferred or measured).
	☐ Plans and specifications:	☐ Surface treatment type, thickness, quality, and
	O Location.	quantity.
	O Design width and length.	☐ Elevation checks of all structures and components
	O Type, location, and dimensions of fence where required.	installed.
	O Grade or percent of slope.	
	O Critical elevations, if applicable.	
	O Type and thickness of surface and base course treatment.	
	O Cut and fill slopes where applicable.	
	O Drainage and structure requirements.	
	☐ O&M Plan posted in Section IV of the e-FOTG.	

Page 6 Issued June 2006



Page 7 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Aquaculture Pond (397), No.	Planning ☐ Feasibility of the practice, considering soils, topography, water quality, water availability, structure requirements, availability of outlets, etc. ☐ Topographical survey with permanent benchmark. Design ☐ TN-ENG-378B or equivalent. ☐ Complete soils investigation report and construction recommendations including spoil placement. ☐ Pond length, width, and depth. ☐ Design structures needed to control runoff and discharge from the pond. ☐ Plans and specifications: ☐ O Location of commercial fishpond. ☐ Typical cross-section of pond. ☐ Details of all control structures. ☐ O&M Plan.	Construction ☐ Record check-out data on form TN-ENG-378B or in the Engineering Field Handbook, as appropriate. ☐ One longitudinal and one lateral cross-section of the pond at the location that represents the section least likely to meet standards and specs. ☐ Check constructed grades against planned grades and note difference. ☐ Record elevations and lengths of all structures installed.
Channel Stabilization (584), Ft.	 Planning □ Determine the complexity of the problem and type of treatment needed to protect the channel and extent of survey needed. □ Conduct planning surveys and develop an engineering plan map for at least the area affected by the practice. Set and describe permanent benchmarks and profile and section 100′ intervals. Use the datum established for the farm (NGVD or assumed elevations). Design □ Plot profiles and cross-sections. □ Determine the appropriate treatment needed to protect the stream channel. □ Protection in accordance with National Engineering Handbook, Part 653, Stream Corridor Restoration Principles, Processes, and Practices. □ Develop cross-sections with sufficient details (such as slopes) to install the practice. □ Design necessary grade stabilization structures and structures for water control. □ Plans and specifications: ○ Site plan layout. ○ Cross sections and profiles. ○ Location and details of appurtenant structures. ○ Special requirements for diverting water, dewatering site, and keeping work area. ○ Special foundation requirements. □ O&M Plan. 	Construction ☐ Photos. ☐ Determine the total length of stream channel protected using a chain, calibrated measuring wheel, GPS, or other equivalent method. ☐ Profile channel bottom not to exceed 100 feet. ☐ Cross-section channel (a minimum of one cross-section). ☐ As-built drawings showing final construction dimensions, details, etc.

Page 8 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Closure of Waste Impoundments (360), No.	Planning □ Determine the extent of the waste impoundment to be closed and the appropriate method of closure. □ Topographical survey with permanent benchmark. Design □ Plans and specifications: ○ Location of impoundment. ○ Utilization of nutrients (Waste Utilization Plan). ○ Where embankments are to be breached, cross-section of embankment and the dimensions of the breach. ○ Details for structures (pipelines, etc.) to be closed or removed. ○ Cross-section of area to be filled.	Construction □ Take a sufficient number of cross-sections to determine if the breach and/or area to be backfilled is constructed to the design elevations. □ Take a sufficient number of profiles and cross-sections to compute the quantity of earth work, where needed, as a basis of payment. □ Location, size, and elevations. □ As-built drawings.
CNMP (100), No.	O Erosion control structure requirements. Planning Inventory and evaluation records TN-CPA-CNMP or equivalent. See CNMP Statement of Work (SOW).	 □ Certified CNMP. □ See individual practices for certification requirements.
Composting Facility (317), No.	Planning □ Feasibility of a composting facility considering topography, floodplain, location, and type of material to be composted, availability and adequacy of land for waste application, proximity to neighboring landowners, and cost. Obtain general information and decisions such as poultry type, number of birds, method of dead bird disposal, mortality rate, flocks per year, amount of litter produced, amount of litter hauled off site, available storage, and method of storage. □ Topographical survey with permanent benchmark may be needed. Design □ Completion of form TN-ENG 317A or equivalent. □ Plans and specifications: ○ Location of facility. ○ Plan view with dimensions etc. ○ Cross-sections. ○ Truss details. ○ Knee and girder brace detail. ○ Post embedment detail. ○ Composter bin details. ○ Wall details. ○ Roof and Purlin details. ○ Concrete floor details. ○ Water supply for composting. ○ Grading and drainage details. □ O&M Plan posted in Section IV of the e-FOTG.	Construction Elevation of completed composter. Constructed dimensions. Structural components: Spacing, height, depth of embedment, size of support posts, and preservative treatment used. Length, width, and height of compost bin(s). Roof details and pitch. Dimensions, type of material used, and preservative treatment for lumber. Type of trusses used and certification from a licensed professional engineer. Type of floor used and dimensions. If concrete, include thickness, joint spacing, steel, etc. Water supply – location of pipeline, size of pipeline, etc. Prepare as-built drawings showing final construction dimensions, details, etc.

Page 9 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Conservation Cover (327), No.	□ Planting dates.□ Site preparation.□ Species selection and seeding rates.	☐ Statement that practice meets standard and specifications in CONS-6 notes along with a description of the vegetation at the time of checkout (example: percent desirable species, height, and condition).
Conservation Crop Rotation (328), Ac.	□ Crops to be grown.□ Sequence of crops and length of crop rotation.	 Statement that practice meets standard and specifications in CONS-6 notes. Each management unit must have gone through the rotation before practice can be certified.
Contour Buffer Strips (332), Ac.	 Completion of Contour Buffer job sheet with highlights or circles on parts relevant to the client. 	 □ Statement that practice meets standard and specifications in CONS- 6 notes along with a description of the vegetation at the time of checkout (example: Percent desirable species, height, and condition). □ GPS checkout of strips for inclusion in Toolkit GIS. □ One to two (1-2) width measurements per strip.
Contour Farming (330), Ac.	 □ Distance and grade toward watercourses along key contour lines. □ Acreage. 	 □ Statement that practice meets standard and specifications in CONS-6 notes. □ GPS key lines for future reference – transfer GPS points to Toolkit.
Cover Crop (340), Ac.	□ Planting dates.□ Site and seedbed preparation.□ Species selection and seeding rates.	☐ Statement that practice meets standard and specifications in CONS- 6 notes along with a description of the vegetation at the time of checkout (example: % desirable species, height, and condition).
Critical Area Planting (342), Ac.	 □ Species or mixtures seeded. □ Type of seedbed. □ Type and amount of mulch, fertilizer, and lime. □ Description of and amount of earthwork needed. 	 Adequacy of seedbed. Adequacy of seeding and mulching. Note problem areas or potential problem areas. Statement that practice meets standard and specifications in CONS-6 notes along with a description of the vegetation at the time of checkout (example: Percent desirable species, height, and condition).

Page 10 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Dike (356), Ft.	Planning □ Determine that an adequate outlet is available, or can be made available. □ Surveys with permanent benchmark. Design □ Determine class of dike. □ Determine earthfill quantities. □ Obtain sufficient soils/geologic investigations. □ Plans and specifications: ○ Location of dike. ○ Profile of top of proposed dike and natural ground along center line of proposed dike. ○ Typical cross-sections. ○ Borrow source. □ O&M Plan.	Construction ☐ Profile of the dike at a maximum of 500 foot spacing. ☐ Total length of the dike by chaining, using a calibrated measuring wheel, GPS, or other equivalent method. ☐ Record and plot at least one cross-section of the dike and excavated channel that represents the section which is least likely to meet standards and specifications.
Diversion, (362), Ft.	Planning □ Determine that an adequate outlet is available, or can be made available. □ Surveys referenced to permanent benchmark with profile shots every 100 feet. Design □ Record Design data on form TN-ENG-362, (Diversion Design Data Sheet) or equivalent. Follow the Design procedure in Chapter 9 of the Engineering Field Handbook (EFH), Part 650, or use an approved computer program. □ Plans and specifications: ○ Location sketch. ○ Typical cross-sections with dimensions. ○ Channel grade. □ O&M Plan.	Construction ☐ Profile of the diversion channel and ridge with readings taken at 100 foot spacing. ☐ Total length of the diversion by chaining, using a calibrated measuring wheel, GPS, or other equivalent method. ☐ Record and plot at least one cross-section of the channel and ridge that represents the section that is least likely to meet standards and specifications. ☐ Statement of adequacy of outlet.

Page 11 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Dry Hydrant (432), No.	 Planning □ Feasibility of site considering adequacy of water source, accessibility to the site by vehicles, etc. Determine the need for all-weather roads. □ Surveys with permanent benchmark and profile the center line of the dry hydrant from the discharge to the low water elevation. Design □ Determination of minimum available water supply. □ Design placed on standard drawings TN-ENG-158, TN-ENG-120NA, and TN-ENG-120NB. □ Plans and specifications: ○ Location of structure. ○ Plan and profile of the pipe showing slope, depth, and critical elevations. ○ Pipe size, class, length. ○ Details of the hydrant head, cap, screens, and other appurtenant structures. ○ Details, length, location, and cross-section of access road. ○ Details of a sign and protective barriers. 	Construction □ Profile the center line of the pipeline with rod readings at the inlet and outlet, the waterline elevation, and bottom elevation of water source. □ Check all appurtenances. Record in the field book type of material used, manufacturer's markings, diameters, and lengths of all pipes, etc. □ Check for sign marking hydrant and protective barriers. □ As-built drawings.
Early Successional Habitat Develop- ment/Mgt. (647), Ac.	 □ O&M Plan. □ Planting rates, dates and plant species to be established. □ Habitat Evaluation Procedure Worksheet. □ O&M plan. □ Resource concerns identified. □ Limiting factors listed. □ Targeted wildlife species or guild. 	 Survival checks of all established plant communities. Photos and documentation that management was performed properly and in the proper time periods. Documentation of adequate nesting heights during the primary nesting season.
Fence (382), Ft.	 □ Location of fence □ Type of fence (i.e., high tensile, barbwire, etc.) □ Operation and Maintenance planned 	 □ Type of post (i.e., Creosote, Pressure treated). □ Type of brace assembly (dia. post and dia. brace). □ Typical line post spacing, type of post, and diameter of post.
Field Border (386), Ft.	☐ Completion of Field Border Job sheet by circling or highlighting the items that are recommended for the client.	 Statement that practice meets standard and specifications in CONS-6 notes along with a description of the vegetation at the time of checkout (example: Percent desirable species, height, and condition).

Page 12 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Filter Strip (393), Ac.	Planning □ Determine feasibility and location. Determine the purpose of the filter strip giving due consideration to protecting the resource of concern. □ Record location of the planned filter strip with approximate slope. Design □ Drainage Area. □ Flow length required. □ Design computations. □ Plans and specifications: ○ Location and plan view. □ O&M Plan.	 □ Profile filter strip to obtain the width and slope. □ Length and width measured by chain, calibrated measuring wheel, GPS or other equivalent method. □ Statement that practice meets standard and specifications in CONS-6 notes.
Firebreak (394), Ft.	 Location and extent planned identified on map. Type of firebreak planned. If seeded, state mixture and rate and timing. Description of any erosion control measures needed. Operation and maintenance requirements. 	 Extent installed. Erosion control measures installed. Statement that practice meets standard and specifications in CONS-6 notes.
Fishpond Mgmt (399), No.	□ Inventory of weed problems. □ List of recommended aquatic herbicides with restrictive uses. □ Fertilization schedule or documentation of discussions with the client. □ Seine or creel census. □ Corrective management recommendations for fish population. □ Species to be managed. □ Documentation of suspected water quality impacts. □ Harvesting schedules (O&M).	 □ Verification of proper fertilization program (bloom evaluation). □ Visual documentation of water quality. □ Stocking and/or harvest data.
Forage Harvest Management (511), Ac.	 Planned stage of maturity at harvest. Moisture content at harvest. Stubble height. Forage-animal balance when harvested for on-farm use (tool: Graze.xls). 	 Documented stubble height. Approximate cutting date.
Forest Site Preparation (490), Ac.	 □ Statement of method of site preparation used. □ Identify any erosion control measures to be used. 	 Extent of area treated. Extent of erosion control measures installed. Statement that practice meets standard and specifications in CONS-6 notes.
Forest Stand Improvement (666), Ac.	□ Statement identifying purpose for improvement. □ Woodland Inventory Transect. □ Stocking before and planned stocking after improvement.	☐ Actual residual stocking rate. ☐ Statement that practice meets standard and specifications in CONS-6 notes.

Page 13 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Grade Stabilization Structure (410), No.	Planning □ Determine that a stable outlet is available or can be made available. □ Engineering job class and possibly hazard classification. □ Surveys with permanent benchmark: ○ Profile and cross-section where structure will be located. ○ Profile downstream to evaluate stability of receiving channel. ○ Pool surface area. Design □ WINPOND or other approved program, e.g., Rock Chute Design, approved Wire Panel Worksheet. □ Drainage areas, grades, overfall dimensions, site conditions, and related hydraulic design data. □ Hydraulics for all flow conditions (pipe, weir, and orifice). □ Plans and specifications: ○ Site plan layout. ○ Location and details of the principal and auxiliary spillway. ○ Cross-sections and profiles of embankment and spillway, cutoff trench, borrow areas. ○ Details for pipe conduits. ○ Special requirements for foundation preparation. ○ Requirements for diverting water, dewatering the site, or spoil disposal. □ O&M Plan.	 Construction □ Profile along the center line of the embankment and auxiliary spillway every 50 feet and at slope breaks. □ Cross-section along the center line of the principal spillway from the upstream invert of the pipe (including crest) to a minimum of 10 feet beyond the pipe outlet invert. □ Cross-section along center line of auxiliary (emergency) spillway including entrance and exit slopes. □ Type, quality, quantity, and size of materials used. □ As-built final construction dimensions, details, etc.
Grassed Waterway (412), Ac.	Planning □ Feasibility and location. Determine that the outlet is stable with adequate capacity for the design flow. □ Surveys to consist of profile, cross-section, permanent benchmark where necessary. □ Design ○ Drainage areas. ○ Design grade, width, depth, retardance. ○ Spring flow interception. ○ Design computations and waterway dimensions. □ Plans and Specifications (use Job sheet located in Section IV of the e-FOTG or equivalent). □ O&M Plan.	Construction ☐ Profile waterway on intervals not exceeding 100 feet. ☐ Cross-section at section(s) least likely to meet the design. ☐ Quantity measurements. ☐ Location, size, etc., of subsurface drains, if used. ☐ Critical area methods/techniques.

Page 14 Issued June 2006



Practice Name,	Conservation Planning and Design Documentation	Certification Documentation
Code, and Unit(s)		
Heavy Use Area Protection (561), Ac.	 Planning □ Site suitability. □ Indication of how practice will function as component of a Comprehensive Nutrient Management Plan and/or Prescribed Grazing System. Design □ Plans and specifications (Use Job sheet located in Section IV of the e-FOTG or equivalent): ○ Plan view of system. ○ Cross-sections with thickness of base course and surface treatment as appropriate. ○ Description of surface treatment. ○ Runoff treatment or exclusion design. □ O&M Plan located in Section IV of the e-FOTG. □ O&M Plan for Rotational Loafing Lots on Dairy located in Section IV of the e-FOTG. 	 Construction Use Job sheet located in Section IV of the e-FOTG or equivalent. As-built plan view with dimensions. Photos (before and after). Measured area with chain, calibrated measuring wheel, GPS, or other equivalent method. Surface treatment type, thickness, and quantity.
Hedgerow Planting (422), Ft.	 □ Location map and acreage of practice. □ Maintenance requirements. □ Planting rates, dates, and plant species to be established. □ O&M. □ Habitat Evaluation Procedure Worksheet. □ Wildlife interest expressed by decision-maker. □ Wildlife species to be managed. □ Habitat deficiency to be provided by the hedgerow. 	 □ Survival checks of planted species. □ Documentation of livestock exclusion. □ Statement that practice meets standard and specifications in CONS-6 notes along with a description of the vegetation at the time of checkout (Example: Percent desirable species, height, and condition).
Irrigation Land Leveling, (464), Ac.	Planning □ Determine the feasibility and complexity of the practice considering soils, topography, drainage outlets, etc. □ Establish permanent benchmark. □ Grid and survey the field to be leveled and set a sufficient number of permanent stakes to reference the grid system. □ Survey field on a maximum of 200-foot centers. Design □ Plot field information and prepare contour map. □ Plans and specifications: ○ Location of field drainage system and/or irrigation water distribution system with plotted survey data, including any water control structures. ○ Grades of each unit or segment. □ O&M Plan.	Construction □ Profiles and other survey data to satisfactorily show the constructed grade. □ Profiles of irrigation/drainage ditches, water control structures. □ Compute the acres leveled. □ Prepare and plot as-built drawings showing final lay of the land and associated irrigation/drainage ditches.
Irrigation Storage Reservoir (436), No./AcFt.	☐ Same as Pond (Code 378).	☐ Same as Pond (Code 378).

Page 15 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Irrigation System, Microirrigation (441), No./Ac.	Planning □ See NEH Part 652, Chapter 6, Irrigation System Design. □ Survey data to plan the location and size of system. Design □ Utilize Tennessee approved computer software. □ Determine the system requirements, layout, etc. □ Plans and specifications: ○ Plan view. ○ Size, type, quantity, and quality of all emitters, laterals, and components. ○ Location and details of filters. ○ Location and details of flushing system. □ O&M Plan.	Construction ☐ System check during operation. ☐ Check lateral size, length, spacing, and manufacturer's markings; applicator locations, spacing, type, and kind; valves; filters; pressure regulators; and all other appurtenances for conformance to plan and design. ☐ Check emission uniformity.
Irrigation System, Sprinkler (442), No./Ac.	 Planning □ Determine suitability of site for irrigation, considering field dimensions, soils, topography, high and low elevations, pumping plant capacity, quality and quantity of water, etc. Select the type of sprinkler system that is adapted to the site, crop(s) to be grown, and the farmer's needs and desires. □ Gather sufficient survey data to plan the location and size of sprinkler system. Calculate quantities and prepare cost estimates. Design □ Plans and specifications to include: ○ System layout. ○ Pipe size, type, pressure class by reach for mainline and laterals. ○ Lateral spacing, nozzle spacing, pressure and flow requirements. ○ Requirements for pump and motor. ○ Requirements for system appurtenances. □ O&M Plan. 	Construction ☐ Record kind, type, class, sizes, spacing, pressure, and capacity of sprinklers. Record type, size, etc., of all appurtenances. The construction check shall include a system evaluation to determine if the system meets the minimum coefficient of uniformity. ☐ Final notes and measurement shall include: ☐ Spacing of laterals and nozzles. ☐ Size of nozzles, laterals, and mainline. ☐ Location, type and size of filters and other appurtenances. ☐ Applicable supporting data documentation items for mainline pipe and pump.

Page 16 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Irrigation Water Conveyance, Pipeline (430 All), Ft.	Planning □ See NEH Part 652, Irrigation Guide, Chapter 6, Irrigation System Design and Chapter 7, Farm Distribution Components. □ Topographic information - sufficient to locate summits. □ Profile pipeline only where summits cannot be determined visually. □ Location of water supply and elevation of pump discharge pipe. Design □ Utilize Tennessee approved computer software. □ Discharge rate, hydraulic gradient or friction losses, appurtenant structures to be installed, showing kind, number, size, location and quantities, and estimated quantity of pipe by sizes and other needed data such as pressure rating, depth of cover, manufacturer's markings, wall thickness, etc. □ Plans and specifications: ○ Plan layout, cross-sections, and profiles showing dimensions and elevations. ○ Material type, size, and pressure class for pipe and fittings. ○ Location, size, type, and pressure class for appurtenances (drains, vents, valves, outlets, pressure relief, thrust blocks, etc.). ○ Pipe trench/backfill requirements. ○ Safety features for trenches, when applicable. ○ Buried utilities disclaimer.	Construction □ Lengths and size measured in the field using a chain, calibrated measuring wheel, GPS, or other equivalent method. □ Pipe type and class, pressure rating, manufacturer's markings, etc., for all pipe installed. □ Size and location of all components such as air release valves, pressure release valves, thrust blocks, etc. □ Cover depth - minimum of one check on each pipeline but not less that one check for each 2,000 feet of pipeline installed. □ Pressure test where appropriate.
Manure Transfer (634), No.	 Planning □ Determine the structures needed to convey manure from the source to the storage area, treatment facility, and application area. □ Located on topographic survey - existing buildings, utilities, etc., in the vicinity of the proposed facility. Design □ Designed in accordance with the appropriate conservation practice standard (i.e., pipelines - Irrigation Water Conveyance Pipeline, Code 430, pumps - Pumping Plant Code 533). □ Engineering plans and specifications: ○ Location and plan view. ○ Cross-sections with critical elevations. ○ Type, quality, and quantity of all materials used. □ O&M Plan located in Section IV of the e-FOTG. 	Construction □ Constructed dimensions, profiles, and elevations of completed structures using chain or calibrated measuring wheel, GPS or other equivalent method. □ Pipe type and class, pressure rating, manufacturer's markings, etc., for all pipe installed. □ Size and location of all components such as air release valves, pressure release valves, thrust blocks, etc. □ Cover depth - minimum of one check on each pipeline, but not less that one check for each 2,000 feet of pipeline installed. □ Dimensions and materials of all other waste conveyances (channels, manholes, drains, etc.).

Page 17 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Nutrient Management (590), Ac.	 Completion of Nutrient Management job sheet by highlighting or circling key guidelines and maintenance items applicable to the client. These items could be expanded on in the plan narrative. Current soil test (Copy of representative soil test for each management unit). Manure testing when manure is applied. Budget of nutrient applications (Use AFOPro for manure nutrient management plans that are part of a CNMP). Methods, rate, and timing of nutrient and lime applications. Crop rotations. Actions to protect sensitive water areas (include in narrative and map). 	Documentation of meeting standard and specifications in conservation plan notes. □ Photos documenting crop health (optional). □ Nutrient application records (notes in Cons-6 of fertility application as provided by the landowner (averaged 50 lbs. per acre of 13-13-13). □ Copy of the manure application records maintained by the client.
Obstruction Removal (500), Ac.	Planning □ Determine the complexity and extent of the obstructions and document the rationale for removing the obstruction. Identify the location, type, and extent of obstruction. Design □ Plans and specifications: ○ Location of obstruction removal. ○ Extent of obstruction removal. ○ Debris disposal required. □ O&M Plan is not required for this practice.	Construction ☐ Determine the total area where obstructions were removed by using a chain, calibrated measuring wheel, GPS, or other equivalent method. ☐ Sufficient measurements should be taken to obtain the quantity of material removed.
Pasture and Hay Planting (512), Ac.	□ Species planted. □ Seeding rate. □ Seeding date range. □ Type of seedbed. □ Planting method.	 □ Statement that practice meets standard and specifications in CONS-6 notes. □ Species present. □ Seeding date. □ Adequacy of stand. □ Planting method. □ Note problem areas or potential problem areas.

Page 18 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Pest Management (595), Ac.	 □ Crop information. □ Identity of target pests. □ Pest control and management/method: ○ Method of control selected. ○ Management method or pesticide name. ○ Rates, product, and form. ○ Timing of application. ○ Method of application. ○ Mitigation and management techniques. □ Evaluate environmental impact of the pesticide management using Windows Pesticide Screening Tool (WIN-PST) Soil-pesticide interaction report. □ Locate and plan for setbacks for water bodies, streams, wetlands, sinkholes and sensitive areas. 	 □ Documentation that all mitigation/management measures to reduce identified toxicity hazards and pesticide loss have been implemented. □ Statement in the Cons-6 notes the practice meets NRCS practice standard.
Pipeline (516), Ft.	☐ Same as Irrigation Water Conveyance, Pipeline (Code 430). ☐ Design – Approved pipeline software or spreadsheet.	☐ Same as Irrigation Water Conveyance, Pipeline (Code 430).
Pond (378), No.	Planning ☐ Make a preliminary investigation to determine site suitability, considering soils, topography, etc. ☐ Surveys with permanent benchmarks. ☐ Where irrigation is the primary purpose of the impoundment, determine that irrigation storage is feasible with an adequate supply of water available. ☐ Check appropriate requirements of state laws for permitting and notify landowner of his/her responsibilities. In many cases, a permit is required prior to construction. Design ☐ WINPOND or other approved program or spreadsheet. ☐ Drainage areas, grades, overfall dimensions, site conditions, and related hydraulic design data. ☐ Hydraulics for all flow conditions (pipe, weir, and orifice). ☐ Plans and specifications: ☐ Site plan layout. ☐ Location and details of the principal and auxiliary spillway. ☐ Cross-sections and profiles of embankment and spillway, cutoff trench, borrow areas. ☐ Details for pipe conduits. ☐ Special requirements for foundation preparation. ☐ Requirements for diverting water, dewatering the site, or spoil disposal. ☐ O&M Plan.	Construction ☐ Profile along the center line of the embankment and auxiliary spillway every 50 feet and at slope breaks. ☐ Cross-section along the center line of the principal spillway from the upstream invert of the pipe (including crest) to a minimum of 10 feet beyond the pipe outlet invert. ☐ Cross-section along center line of auxiliary (emergency) spillway including entrance and exit slopes. ☐ Type, quality, quantity, and size of materials used. ☐ As-built final construction dimensions, details, etc.

Page 19 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Pond Sealing or Lining (521), No.	Planning ☐ Preliminary investigation to determine if a lining is required. Design ☐ Size and type of pond sealing required. ☐ Compaction and/or amendment requirements. ☐ Plans and specifications: ☐ Location of structure. ☐ Cross-sections. ☐ Special foundation preparation, if needed. ☐ Details of the type and quality of lining and components. ☐ O&M Plan.	Construction ☐ Constructed dimensions of the lining including thickness. ☐ Compaction method of sub-base or test documenting adequacy of compacted clay liner. ☐ Constructed dimensions and elevations of component structures. ☐ Notes on installation methods, seaming (overlap, welds, leak detection results).
Prescribed Burning (338), Ac.	☐ Identified purpose of the Prescribed Burn. ☐ Prescribed Burning job sheet.	□ Copy of Prescribed Burn Plan used to conduct the burn.□ Photos (After).
Prescribed Grazing (528), Ac.	 Estimated production, distribution, and utilization. Planned grazing and rest period. Planned grazing height beginning and ending height. Tools: Estimated Paddock Size, Graze Program. 	☐ Documentation in CONS-6 of how the system has met design criteria once system goes through one rotation.
Pumping Plant (533), No.	Planning □ Preliminary investigation to determine need and feasibility of the pumping plant. Determine type of pumps (axial flow, centrifugal, etc.) that would be applicable to the proposed project. Design □ Determine the capacity (gpm) and total dynamic head (feet). □ Plans and Specifications: ○ Pump location. ○ Size and type of pump. ○ Pump discharge capacity (gpm) and required head at pump discharge. ○ Details for mounting pump (may be left up to the manufacturer). ○ Details for pump pad including dimensions, type of material, etc. ○ Details of appurtenances. □ O&M Plan.	Construction □ Size, type of pump, model, manufacturer, rated RPM, and installed appurtenances. □ Pump discharge capacity. □ Gear head, if applicable (i.e., HP, RPM, Ratio). □ Power unit: type, manufacturer, rpm, HP. Note safety of unit (i.e., power shaft covered, etc.). □ Intake elevation of suction line. □ Pump elevation at center line of impeller. □ Operational check. □ Dimensions and type of pump pad. □ As-built drawings showing final construction dimensions, details, etc.
Residue Management (329 AII), Ac.	 □ Kinds, types, and timing of tillage operations. □ Residue at planting. □ Acreage. 	 Statement that practice meets standard and specifications in CONS-6 notes along with a description of the residue and distribution at the time of checkout (Example: Percent residue evenly distributed across the field). Photos of typical residue at planting (strongly encouraged).

Page 20 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Residue Management, Seasonal (344), Ac.	 □ Kinds, types, and timing of tillage operations. □ Residue at planting. □ Acreage. 	 □ Statement that practice meets standard and specifications in CONS-6 notes along with a description of the residue and distribution at the time of checkout (Example: Percent residue evenly distributed across the field). □ Photos of typical residue at planting (strongly encouraged).
Riparian Forest Buffer (391), Ac.	 Statement identifying purpose. Width and length. Species to be established or maintained. Time of planting and spacing. Any protective measures needed, i.e., fencing. 	 □ Statement that practice meets standards and specifications in Assistance Notes. □ Extent of practice units applied. □ Width and extent of buffer zones. □ Actual plant materials used or maintained. □ Extent of any protective measures used.
Roof Runoff Structure (558), No.	Planning □ Preliminary investigation to determine the overall need and feasibility, and type of outlet for disposing of the runoff, etc. □ Surveys to determine: ○ Roof area to be treated. ○ If the system is part of a total waste management plan, etc., a topographical map will show location of all buildings, ground elevations, and outlet locations. ○ Establish benchmark, where needed, to establish elevations for construction. Design □ Utilize procedures in NEH Part 651, Chapter 10, pages 10-1 through 10-3, of the Agricultural Waste Management Field Handbook and/or approved computer program. □ Plans and Specifications: ○ Location of all gutters and downspouts. ○ Sizes and slope of all gutters. ○ Size of downspouts. ○ Type of material. ○ Special fastener details, if needed. ○ Detailed plans for the gutter outlet.	Construction ☐ Photos. ☐ Size, length, slope, and location of gutters and downspouts. ☐ Type of material used. ☐ As-built drawings, as necessary, showing final construction dimensions, details, etc.
Sediment Basin (350), No.	☐ Same as Grade Stabilization Structure (Code 410).	☐ Same as Grade Stabilization Structure (Code 410).

Page 21 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Spring Development (574), No.	Planning □ Determine that the site is suitable for spring development. □ Surveys - profile of system. Establish permanent benchmark. Design □ Plans and Specifications: ○ Location sketch showing all components. ○ Length, width, and depth of trench, if applicable. ○ Length, size, and kind of collection pipes, spring box, and outlet pipes. ○ Critical elevations of all component structures. ○ Cut and fill slopes where applicable. □ O&M Plan.	Construction □ Dimensions and elevations of collection system, spring box. □ Outlet flow rate calculations. □ Quantities. □ Description of water facility, if installed. □ As-built drawings.
Stream Crossing (578), No.	Planning □ Determine if proposed crossing would be stable. □ Indication of how practice will function as component of a Comprehensive Nutrient Management Plan and/or Prescribed Grazing System. □ Surveys: □ Establish permanent benchmark. ○ Profile in stream 100 feet up and 100 feet down stream. ○ Cross-section at center line of crossing and one at 100 feet up and down stream of crossing. ○ Drainage areas along with hydrologic factors to compute stream flow, if needed. Design □ Plan and Specifications: ○ Site plan. ○ Drawings. ○ Calculations. ○ Construction Specifications. □ O&M Plan located in Section IV of the e-FOTG.	Construction ☐ Cross-section of crossing. ☐ Slope of approaches. ☐ Profile on stream channel to show crossing and stream are on a uniform grade. ☐ Type and quantity of geotextile used. ☐ Gradation, quantity, and type of gravel. ☐ Adequacy of seeding, fertilizer, and mulching. ☐ As-built drawings. ☐ Final quantities.

Page 22 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Streambank and Shoreline Protection (580), Ft.	Planning □ Determine the complexity of the problem and type of treatment needed to protect the streambank and extent of survey needed. □ Surveys ○ Establish the location of the area to be protected ○ Establish Permanent Benchmark ○ Cross sections at not more than 100-feet intervals, depending upon irregularity of the natural ground and/or area to be protected Design □ Design in accordance with National Engineering Handbook, Part 653, Stream Corridor Restoration Principles, Processes, and Practices: ○ Plot profiles and cross-sections. ○ Determine the appropriate treatment. ○ Inclusion of grade stabilization structures, where necessary. □ Plans and specifications: ○ Site plan layout, cross-sections, and profiles. ○ Type of materials, rock gradations, as appropriate. ○ Special foundation or filter requirements. ○ Special end conditions.	 □ Length of streambank protected measured in the field using a chain, calibrated measuring wheel, GPS, or other equivalent method. □ Profile top of bank and bottom at a spacing not to exceed 100 feet. □ Cross-section the streambank spacing not to exceed 200 feet with a minimum of one cross-section. □ Record type and quality of materials used. □ Prepare as-built drawings showing final construction dimensions, details, etc.
Structure for Water Control (587), No.	 Design □ Establish permanent benchmark. □ Determine drainage areas, design flow, structure elevations, grades, overfall dimensions, site conditions, and related hydraulic design data or use approved computer program. □ Check pipe hydraulics for all flow conditions - pipe, weir, and orifice. □ Plans and specifications: ○ Location and plan view of structure. ○ Typical profile and cross-section of embankment. ○ Structure dimensions and elevations. ○ Type, quality, and quantity of material to be used for structures. □ O&M Plan. 	Construction ☐ Profile along the center line of the embankment. ☐ Cross-sections of the completed structure. ☐ Entrance and exit invert elevation. ☐ Size and quantity of materials used. ☐ Elevations of structure. ☐ Type and quality of materials used and manufacturer's markings. ☐ Prepare as-built drawings showing final construction dimensions, when necessary.

Page 23 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Subsurface Drain (606), Ft.	Planning □ Preliminary investigation to determine feasibility considering drainage requirements, availability of an outlet, subsurface conditions, and costs. □ Engineering Surveys ○ Establish permanent benchmark ○ Survey data to plan the location including profile of proposed drain(s) Design □ Capacity requirements of conduit, riser, and other appurtenances and determine required size. □ Plans and specifications: ○ Site plan layout showing location of structure. ○ Profile of the drain showing slope, depth, and critical elevations. ○ Details of appurtenance structures (vents, standpipes, inlets, outlets, etc.) including location, dimensions, elevations, and materials. ○ Special compaction or bedding requirements. ○ Pipeline size, class, length. ○ Vegetative treatments and requirements.	Construction ☐ Pipe markings, class, size, lengths, grade, dimensions and depths of cover. ☐ Lengths measured to the nearest foot with a chain, calibrated measuring wheel, GPS, or other equivalent method. ☐ Location, size, and elevation of inlets, outlets or other appurtenance structures. ☐ Type of pipe, manufacturer, and other markings. ☐ Any additional as-built information. ☐ If the water outlets are underground, it falls under the Class V injection well program, per TDEC.
Terrace (600), Ft.	 Planning □ Preliminary investigation of the need and feasibility of a terrace system based on topography, availability, and adequacy of outlets, erodibility of the soils, land use, and cost. □ Surveys: ○ Topographical data when necessary. ○ Profile (100-foot stations). □ Average land slope and horizontal interval for each terrace. □ Spacing and type. □ From the profile of the terrace, establish grade with cuts and fills. □ For storage terraces, use Tennessee approved engineering programs, e.g., wascob.xls located in Section IV of the e-FOTG. □ Plans and specifications:	Construction □ Length measured with chain, calibrated measuring wheel, GPS, or other equivalent method. □ Profile and cross-section one terrace (pick the one that is least likely to meet standards and specs) in each field or one terrace in each group of terraces. □ For underground outlets, see Underground Outlet certification documentation. □ Outlet adequacy.

Page 24 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Tree/Shrub Establishment (612), Ac.	 □ Species to be established. □ If Forest Site Preparation practice is needed. □ Any protective measures needed, i.e., Fencing. □ Time of planting. □ Spacing. 	 □ Statement that practice meets standards and specifications in Assistance Notes. □ Species established. □ Planting date. □ Stocking rate.
Underground Outlet (620), Ft.	Planning □ Preliminary investigation to determine feasibility of the underground outlet. Consider discharge requirements, availability of an outlet, subsurface conditions, and costs in making this determination. Design □ Completion of spreadsheet wascob.xls or other approved software. □ Plans and specifications: ○ Site plan layout showing location of structure. ○ Details of appurtenance structures (inlets, outlets, etc.) including location, dimensions, elevations, and materials. ○ Special compaction or bedding requirements. ○ Pipeline size, class, length. ○ Details for appurtenances such as vents, standpipes, outlets, etc. ○ Location of utilities and notification requirements.	Construction □ Pipe markings, class, size, lengths, and depths of cover. □ Lengths of underground outlets shall be measured to the nearest foot with a chain, calibrated measuring wheel, GPS, or other equivalent method. □ Location and size and elevation of inlets. □ Type of pipe, manufacturer, and other markings. □ Pipe depth of cover. □ Pipe grade and dimensions.
Upland Wildlife Habitat Mgmt. (645), Ac.	 Species to be managed. Extent of wildlife interest expressed by the client. Type and extent of management treatments planned. O&M. List of habitat deficiencies noted and alternatives to address the deficiencies. Tool Required: Habitat Evaluation Procedure Worksheet. 	 Survival checks of planted species Documentation of livestock exclusion during the primary nesting season Documentation of the health and quality of the planted materials Photos and documentation that management was performed properly and in the proper time periods Documentation of adequate nesting heights during the primary nesting season
Use Exclusion (472), Ac.	 Identify the purpose for the exclusion (what is excluded, what is protected). Identify type of barrier to be used. Timing, method, and duration of exclusion, if not permanent. Include drawings/standardized drawing, if applicable for barrier. Operations and Maintenance requirements. 	 □ Extent of the practice units applied (acre). □ As-built drawings of barrier if permanent. □ Actual extent of barriers applied. □ Statement in the Cons-6 notes that the practice meets standards and specifications.

Page 25 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Waste Storage Facility (313), No.	Planning Preliminary Investigation: O Calculations demonstrating storage period needed based on timing required for environmentally safe manure utilization. O Complete subsurface investigation report for liquid containment pits GPS located and elevations referenced to permanent benchmarks – see Waste Storage Facility SOW. O Soil suitability report for stackable manure stored on earth. O For Poultry Litter Storage, completion of TN-ENG-313A or equivalent O Topographical Survey with permanent benchmark. Design Sizing or design calculations using approved software (AWM) or other approved method as in AWMFH. Plans and specifications: O Location of structure. O Plan view of structure with elevations/contours. O Cross-sections with elevations/dimensions. Details on supporting structures (i.e., fence, tractor safety device, roofing details, scrape alleys and/or ramps, truss certification by Tennessee Planning Engineer). O&M Plan for Dry Manure located in Section IV of the e-FOTG. O&M Plan for Liquid Manure located in Section IV of the e-FOTG.	Construction Checks as the work progresses (i.e., photos, observations, measurements, and surveys). Excavated and embankment ponds: Cross-sections - One longitudinal and one lateral cross-section of the excavated waste storage pond. Constructed grades. Excavation quantities. Compacted Clay Liner: Dimensions. Quality and thickness. Verification of compaction and specific discharge standard as per standard and Appendix 10D of AWMFH. Correte and/or prefabricated waste storage facilities: Litter storage/dry stacking facilities — Completion of form TN-ENG-313CC. Extent of practice units applied. Steel reinforcement. Verification of concrete design mix. Concrete slump, air, and temperature. Curing method. Constructed dimensions, elevations, and grades. Verification that gas release vents, foundation drains, and pipes were installed as planned. Roof construction details. Type of trusses used and certification from a Tennessee Planning Engineer. Manufacturers' certification for prefabricated structures. Geomembrane lined storage facilities: Overall dimensions. Quality and thickness of liner. Liner joints. Cover over liner.
Waste Treatment Lagoon (359), No.	☐ Same as Waste Storage Facility (Code 313).	☐ Same as applicable items in Waste Storage Facility (Code 313).

Page 26 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Waste Utilization (633), Ac.	Planning □ Preliminary investigation to determine feasibility of utilizing waste, i.e., topography, floodplain, type material, availability and adequacy of land for waste application, proximity to neighboring landowners, off-site application, temporary storage, and cost. Design □ Method(s) for waste utilization. □ Plans and specifications: ○ Location and timing of waste application. ○ Amount of waste to apply per acre. ○ Record keeping requirements. □ O&M Plan.	□ Completion of Waste Utilization or Nutrient Management Plan.
Water and Sediment Control Basin (638), No.	 □ Same as Grade Stabilization Structure (Code 410). Design □ Completion of wascob.xls or other approved program. 	☐ Same as Grade Stabilization Structure (Code 410).
Water Well (642), No.	Planning □ Determine the feasibility and need for the water well for the planned purpose. Design □ Capacity of the well. □ Location (latitude and longitude) and water well head protection need. □ Water depth elevations for determining pump requirements. □ Plans and specifications: ○ Location of water well and capacity. ○ Well head protection, size, thickness, concrete pad, surface sealing, and capacity. ○ Well casing, type, gage, and diameter. □ O&M Plan.	Construction ☐ Depth of well, casing, and screen or well casing perforations. ☐ Depth and quantity of gravel pack. ☐ Type and gage of well casing material. ☐ Well driller's log (if available). ☐ Depth and method of sealing surface casing. ☐ Water well capacity in gpm - must equal or exceed planned capacity. ☐ The dimensions of the water well head protection slab or casing head above ground.

Page 27 Issued June 2006



Practice Name, Code, and Unit(s)	Conservation Planning and Design Documentation	Certification Documentation
Watering Facility (614), No.	Planning □ Preliminary investigation to determine number and purpose for watering facility. Design □ Material type. □ Size of facility required and ramp protection needed. □ Complete Water Facility Fact Sheet TN-ENG-614 or equivalent. □ Plans and specifications: ○ Location of watering facility (GPS coordinates), associated pipeline, and water source. ○ Size and number of facilities. ○ Details of all appurtenances of watering facility including overflow preparations. ○ Foundation requirements including type and size. ○ Construction Specifications. □ O&M Plan located in Section IV of the e-FOTG.	Construction ☐ Measurements and location of watering facility (GPS located). ☐ Materials used. ☐ Dimensions of facility pad and type of material used for the area around facility, i.e., corresponding heavy use area and fence location.
Wetland Restoration (657), Ac.	 □ List of wetland functions to be restored. □ Type of hydrologic treatments planned. □ Any wildlife species specifically targeted. □ Habitat Evaluation Procedure Worksheet. □ Planned plant community restoration including plant species, rates, and dates. □ Areas targeted for natural regeneration. □ O&M. □ Water sources or method of recharge. □ Permitting requirements. 	 □ Survival checks of plant communities established. □ Photographs. □ Documentation that permit conditions were met. □ Final inspection of all hydrologic structures. □ Completed functional assessment.
Wetland Wildlife Habitat (644), Ac.	 Species to be managed. Documentation of wildlife interests by client. Type and extent of management treatments planned. O&M addressed. List of habitat deficiencies noted and alternatives to address the deficiencies. Permit needs, if applicable. Functions to be enhanced. Tool Required: Habitat Evaluation Procedure Worksheet. 	 □ Photographs. □ Documentation that permit conditions were met, if applicable. □ Completed functional assessment.

Page 28 Issued June 2006